CLAIMS

What is claimed is:

1. Headlamp for vehicles with at least one planar luminous panel having a plurality of luminous-element chips, and with an optical element arranged in the beam path of the light beam emitted by the luminous panel, characterised in that the luminous-element chips (4) of the luminous panel (3, 21, 31) are arranged in a common recess (5) and in that the recess (5) on one side facing in the direction of light emission (8) has an edge (9, 25, 32) in such a way in a spatial arrangement to the luminous-element chips (4) that a predetermined luminance gradient (G, G', G") in a light distribution (L) of the headlamp is formed in the region of the edges (9, 25, 32).

2. Headlamp according to claim 1, characterised in that the recess (5) is trough-shaped with an edge wall (7, 7', 7") which runs perpendicularly to the direction of light emission (8) of the luminous panel (3) and stands up from a bottom side (6) of the recess (5) and on whose side facing away from the bottom side (6) runs the edge (9).

3. Headlamp according to claim 1 or 2, characterised in that the edge (9) runs peripherally in a plane which is oriented perpendicularly to the main direction of emission of the luminous panel (3).

4. Headlamp according to any of claims 1 to 3, characterised in that the shape of the edge wall (7, 7') and/or edge (9) is such that, in combination with the optical element (2, 23, 34) mounted in front, a predetermined luminance distribution is produced.

5. Headlamp according to any of claims 1 to 4, characterised in that the edge wall (7, 7') and/or the edge (9) of the recess (5) has a rectangular or triangular or circle segment shape in a top view, and in that the edge (32, 32') has a break (33) for forming an asymmetrical light/dark boundary (LDB).

6. Headlamp according to any of claims 1 to 5, characterised in that several light-emitting diode chips (4) are arranged directly adjoining at least the edge wall (7, 7') comprising the edge (9) which produces the light/dark boundary (LDB).

7. Headlamp according to any of claims 1 to 6, characterised in that the recess (5) is filled with a light-converting luminescent material, such that the light emitted by the luminous-element chips (4) is converted to white light.

8. Headlamp according to any of claims 1 to 7, characterised in that the light-converting luminescent material is integrated in a cast material which covers the recess (5).

9. Headlamp according to any of claims 1 to 8, characterised in that the bottom side (6) of the recess (5) is reflectively coated.

10. Headlamp according to any of claims 1 to 9, characterised in that the luminous panel (3) is integrated in a luminous plate (1), the recess (5) being set in a front side (10) of the luminous plate (1) running perpendicularly to the direction of light emission (8).